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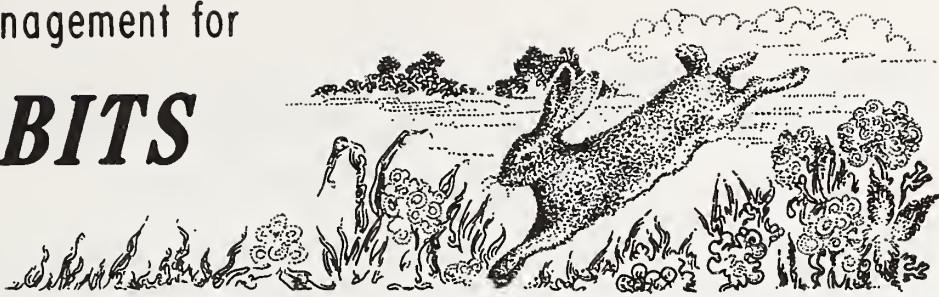
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# Habitat management for

# RABBITS



MAR 26 1990

CATALOGING PREP.

## In Kansas

Three species of rabbits occur in the state. The eastern cottontail (*Sylvilagus floridanus*) is common throughout the state wherever there is good cover (Fig. 1). The desert cottontail (*Sylvilagus audubonii*) inhabits the western one-third of the state and the swamp rabbit (*Sylvilagus aquaticus*) is found in the extreme southeast portion.

The two species of jackrabbits which occur in the state, are hares belonging to the genus *Lepus* and will not be covered in this guide.

Approximately 500,000 rabbits are harvested annually by Kansas hunters. This figure varies by year due to large fluctuations in rabbit numbers. During the last 20 years, numbers harvested varied from a high of 2,000,000 in 1958 to a low of 260,000 in 1971.

Breeding season for cottontail rabbits in Kansas is usually from March through August. The doe carries her young for 28-30 days. Litter size varies from one to eight young, but averages five. Young cottontails are born blind and hairless in or near a nest dug by the doe and lined with grass and fur. The young rabbits develop rapidly and are able to care for themselves after two to three weeks. It is not uncommon for the female to mate the same day a litter is born. A doe may produce three to five litters each year. This large birth rate in addition to predators, disease, and weather conditions, partially accounts for the large fluctuations in population numbers.

A cottontail seldom lives long in the wild. The average life span is rarely over one year. An annual death loss of approximately 80 percent will occur whether rabbits are hunted or not. The highest population numbers usually occur in late June or early July; the lowest during February or March. Approximately 50 percent of the rabbits born each year, die before the first snow storm.

Research has shown that litter size and ultimately total population is usually directly related to soil fertility of the area. The objective of management is to increase the potential total number of cottontails throughout the year. Then, even though the annual loss is high, the number of rabbits remaining will also be high.



Rabbit populations fluctuate due to a combination of factors. These include weather, food, water, cover, disease, and predators.

#### Food and Water

The cottontail rabbit will eat almost every plant that grows aboveground. Most summer food consists of grasses, sedges, legumes, tree leaves, and other succulent greens. During the fall and winter, cottontails feed on milo, cornstalks, legumes, forbs, waste grain, green foliage of cool season grasses, and the bark and stems of young shrubs and trees. The bark and stems of sumac have a high fat content and are fair winter food. Water is obtained by eating succulent plants, drinking from available sources, and licking dew during the summer and eating snow in the winter.

#### Cover

The most important component of rabbit habitat is cover. Adequate cover is necessary for feeding, loafing, and breeding, but most importantly for escaping from predators. Cover should be adjacent to or intermixed with areas of food plants. Good escape cover could include dense brush piles, hollow logs, animal burrows, and low dense shrubs such as rose and blackberries. Mature forests with clean understories are generally not good rabbit habitat.

#### Disease and Predation

Cottontails can be infected with internal and external parasites and diseases caused by bacteria. A common parasite is the dog tapeworm which forms white watery, bladderlike cysts within the cottontail's body cavity. These tapeworms are harmless to man but can infect dogs and cats. Skin fibromas (tumors) caused by a virus, and grubs under the skin caused by flies, are both common in rabbits. Infected rabbits can be cleaned and eaten safely as long as they are well cooked.

Probably the worst disease of rabbits is tularemia. Tularemia is spread to rabbits, other mammals, and birds by ticks, fleas, and other biting pests. Tularemia or "rabbit fever" is sometimes common during warm weather when biting insects are abundant but lessens during cold weather. Infected rabbits usually die within 10 days. It is suggested that hunters always wear rubber gloves while cleaning rabbits and that the meat be thoroughly cooked. Since the advent of modern medicine, rabbit fever is not a serious disease for humans.

The cottontail rabbit is a natural prey species for most predators. They are pursued both day and night by wild predators such as coyotes, hawks, and owls, and domestic animals such as dogs and cats. Many wild animal populations are somewhat dependent upon rabbits for continued success of the population.

Predators are often blamed for limiting rabbit populations, but in habitat with sufficient cover, predators cannot catch enough rabbits to

adversely affect their populations. Good habitat, rather than predator control, is the key to rabbit abundance.

#### HABITAT MANAGEMENT SUGGESTIONS

Almost any land can be developed and managed as rabbit habitat. The key element in the development of rabbit habitat is interspersion or the intermixing of the types of habitat needed by the rabbit. This intermixing, or breaking up into small units, provides the maximum amount of edge. The amount of edge between cover and food is generally in proportion to the number of rabbits present.

The following suggestions will increase rabbit habitat and may enhance population growth:

1. Develop brush piles in areas where cover is lacking. Brush piles are especially beneficial in field borders and corners adjacent to cropland. Brush piles should be 12 to 15 feet in diameter and from three to five feet high. They should be placed at a density of two to three per acre where no cover is available.
2. Develop small areas of food such as milo, corn, alfalfa, and sweet clover near brush piles and especially in areas composed entirely of grass. This provides edge and interspersion.
3. Allow fence rows, ditches, road edges, and other non-farmed areas to grow back to native vegetation or seed the areas with a grass, legume mixture.

The Soil Conservation Service, local conservation districts, the Kansas Fish and Game Commission, and the Kansas State University Cooperative Extension Service offer competent guidance on soil, water, plants, and wildlife habitat management.

KANSAS

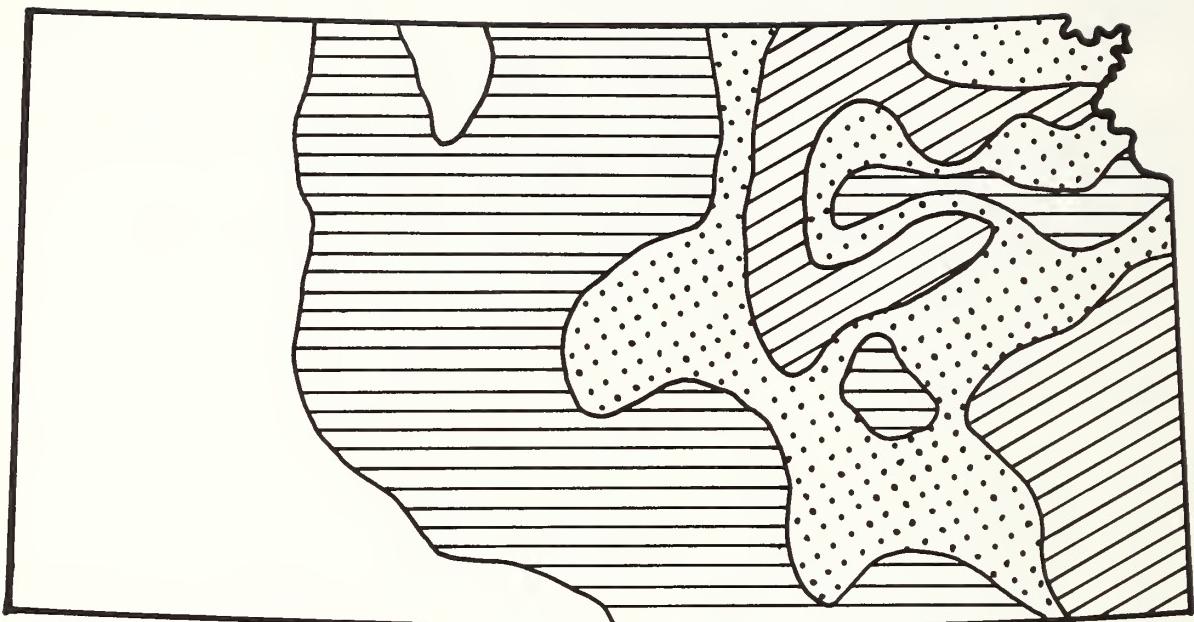


Figure I.

KFF & GC - 1976

**GENERAL DENSITY DISTRIBUTION OF THE COTTONTAIL\***

High



Medium



Low



Scarce



\* Locally abundant populations can occur in all areas where sufficient habitat is available.

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